miR than meets the eye.

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Funding Grants: The retinoblastoma (RB) gene family in cellular reprogramming

Public Summary:
Here we review recent publications indicating that microRNAs, which are small RNA molecules in cells, control the development of retinoblastoma, a pediatric cancer thought to arise from stem/progenitor cells

Scientific Abstract:
Retinoblastoma is a rare pediatric cancer that has served as a paradigm to investigate the mechanisms of tumorigenesis. In this issue of Genes & Development, Conkrite and colleagues (pp. 1734-1745) found high levels of the miR-17 approximately 92 and miR-106b-25 microRNAs in primary retinoblastomas and show that overexpression of miR-17 approximately 92 accelerates retinoblastoma development in mice by promoting proliferation, in part by reducing expression of the cell cycle inhibitor p21. These experiments identify the RB/miR-17 approximately 92/p21 axis as a critical regulator of retinoblastoma tumorigenesis and potentially many other cancers.